

AMENDMENTS TO THE CLAIMS:

This listing of claims replaces all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (Currently Amended) A telecommunications system comprising containing at least two devices (3, 4), for providing one to provide output clock signals that are signal each synchronous to a at least one source clock signal source, with devices (3, 4) for providing each being connected to at least one of the clock sources and at least one of the provision devices (3, 4) encompassing comprising an interface card to a standardized transmission network[[],]; and
a main clock generator (2) for generating a main clock of the telecommunications system, with the main clock generator (2) being connected with the provision devices (3, 4) and receiving from them the clock signals, with main clock generator (2) having means (5) for selecting comprising a selector to select one of the output clock signals, the main clock generator generating a main clock signal for the telecommunications system based on a selected one of the output clock signals; characterized in that
wherein each of the provision devices (3, 4) have means (6) for determining the comprises a quality detector (i) to detect a quality of the at least one source clock signal source and (ii) to interrupt the provision of the respective providing an output clock signal upon a decline in the respective detected in response to a decrease in quality[[],] of the at least one source clock signal;

wherein the main clock generator comprises an interrupt detector to detect an interruption in an output clock signal provided by at least one of the devices; (2) has means (7) to recognize an interruption of the selected clock signal, and

wherein the means (5) for the selection are connected to the means (7) for recognition and select a different clock signal if the selected clock signal selector selects a different output clock signal if the interrupt detector detects that the selected one of the output clock signals is interrupted.

2. (Currently Amended) The telecommunications system according to of claim 1, wherein the devices comprise characterized in that the telecommunications system contains at least three devices; and

(3, 4) for provision and the means (5) for selecting among the other clock signals the clock signal with the wherein the selector selects a different output clock signal with a highest quality if the selected one of the output clock signals clock signal is interrupted.

3. (Currently Amended) The telecommunications system according to of claim 1 or 2, wherein characterized in that the telecommunications system is comprises a digital telecommunications system.

4. (Currently Amended) The telecommunications system according to of claim 1 or 2, wherein one of claims 1 through 3 characterized in that the telecommunications system has an asynchronous transfer mode (ATM) ATM architecture.

5. (Currently Amended) The telecommunications system according to of claim 4,
wherein characterized in that at least one of provision the devices (3, 4) is comprises an
ATM multiplexer.

6. (Currently Amended) The telecommunications system according to of claim 1
or 2, wherein the at least one source clock signal comes from a one of claims 1 through 5
characterized in that used as clock sources are transmission route of the transmission
network routes to which the telecommunications system is connected.

7. (Currently Amended) The telecommunications system according to of claim 6
characterized in that the telecommunications system is connected to a PDH wherein the
transmission route comprises a plesiochronous digital hierarchy (PDH) transmission route;
and

wherein the quality detector evaluates a the means (6) for determining the quality
evaluate the timing marker bit of the at least one source clock signal.

8. (Currently Amended) The telecommunications system according to of claim 6,
wherein the characterized in that the telecommunications system is connected to an SDH
transmission route comprises a synchronous digital hierarchy (SDH) transmission route;
and

~~the means (6) for determining the quality evaluate the SSM wherein the quality detector evaluates a synchronization status message (SSM) byte of the at least one source clock signal.~~

9. (Currently Amended) The telecommunications system according to of claim 6, wherein the transmission route comprises a synchronous optical network (SONET) transmission route; characterized in that the telecommunications system is connected to a SONET transmission route and

wherein the quality detector evaluates a synchronization status message (SSM) byte of the at least one source clock signal the means (6) for determining the quality evaluate the SSM byte.

10. (Currently Amended) The telecommunications system according to of claim 1 or 2, wherein at least one of the one of claims 1 through 9 characterized in that the provision devices interrupts providing an output clock signal if the at least one source clock signal is lost (3, 4) also interrupt providing the provision in the event of the loss of the particular clock source.

11. (Currently Amended) The telecommunications system according to of claim 1 or 2, wherein interrupts produced by the one of claims 1 through 10 characterized in that the provision devices are (3, 4) interrupt the provision on a hardware-controlled basis.

12. (Currently Amended) The telecommunications system according to of claim 1 or 2, wherein interrupts produced by the one of claims 1 through 10 characterized in that the provision devices are (3, 4) interrupt the provision on a software-controlled basis.

13. (Currently Amended) The telecommunications system according to of claim 1 or 2, wherein the selector is one of claims 1 through 12 characterized in that the means (5) for selecting the other clock signal select the other clock signal on a hardware-controlled basis.

14. (Currently Amended) The telecommunications system according to of claim 1 or 2, wherein the selector is one of claims 1 through 12 characterized in that the means (5) for selecting the other clock signal select the other clock signal on a software-controlled basis.

15. (Currently Amended) A method for generating a main clock signal in a telecommunications system, comprising with the method having the following steps:
provision of at least two providing output clock signals that are based on at least one received clock signal, the output clock signals being provided from devices, at least one of the devices comprising an interface card to a transmission network;[[],]
selection of selecting one of the output clock signals; provided, and
use of the using a selected one of the output clock signals as synchronization source of to generate the main clock signal;[[],]

characterized through the following steps:

determination of the determining a quality of the at least one received clock signal
using at least one device; signals in at least two clock signal provision devices (3, 4) of the
telecommunications system, of which at least one includes an interface card to a
standardized transmission network;

interruption of a clock signal in the event its quality declines, interrupting an output
clock signal from the at least one device in response to a decrease in quality of at least one
received clock signal; and

selection of another clock signal by a main clock generator (2) of the
telecommunications system in the event selecting a different output clock signal for use in
generating the main clock signal if the selected one of the output clock signal signals is
interrupted.

16. (Currently Amended) The method according to of claim 15, wherein
characterized in that in the step of provision, at least three output clock signals are
provided; and in the step of the selection of the other clock signal, the
wherein a different output clock signal with the a highest quality is selected if the
selected one of the output clock signals is interrupted.

17. (Currently Amended) The method according to of claim 15 or 16, wherein
characterized in that the telecommunications system is comprises a digital
telecommunications system.

18. (Currently Amended) The method according to of claim 15 or 16, wherein one of claims 15 through 17 characterized in that the telecommunications system runs the asynchronous transfer mode (ATM) protocol works according to the ATM standard.

19. (Currently Amended) The method according to of claim 15 or 16, wherein the at least one received clock signal comprises a source clock signal from one of claims 15 through 18 characterized in that the provision of the clock signals takes place using at least one transmission route of the transmission network as clock source.

20. (Currently Amended) The method according to of claim 19, wherein characterized in that the transmission route is comprises a PDH plesiochronous digital hierarchy (PDH) transmission route; and
wherein the step of determining the quality includes an evaluation of the comprises evaluating a timing marker bit of the at least one received clock signal.

21. (Currently Amended) The method according to of claim 19, wherein characterized in that the transmission route is an SDH comprises a synchronous digital hierarchy (SDH) transmission route; and
wherein the step of determining the quality includes an evaluation of the SSM comprises evaluating a synchronization status message (SSM) byte of the at least one received clock signal.

22. (Currently Amended) The method according to of claim 19, wherein characterized in that the transmission route is a SONET comprises a synchronous optical network (SONET) transmission route; and

wherein the step of determining the quality includes an evaluation of the SSM comprises evaluating a synchronization status message (SSM) byte of the at least one received clock signal.

23. (Currently Amended) The method according to of claim 15 or 16, wherein one of claims 15 through 22 characterized in that the step of interrupting a clock signal takes place on a is hardware-controlled basis.

24. (Currently Amended) The method according to of claim 15 or 16, wherein one of claims 15 through 22 characterized in that the step of interrupting a clock signal takes place on a is software-controlled basis.

25. (Currently Amended) The method according to of claim 15 or 16, wherein selecting the different output clock signal is one of claims 15 through 24 characterized in that the step of selecting the other clock signal takes place on a hardware-controlled basis.

26. (Currently Amended) The method according to of claim 15 or 16, wherein selecting the different output clock signal is one of claims 15 through 24 characterized in that the step of selecting the other clock signal takes place on a software-controlled basis.

27. (Currently Amended) The method according to of claim 26, wherein selecting the different output clock signal comprises consulting characterized in that the step of selecting the other clock signal contains a step of reading a local database in order to make a selection.

28. (Currently Amended) The method according to of claim 15 or 16, wherein selecting the different output clock signal comprises one of claims 15 through 27 characterized in that following the step of selecting the other clock signal, a step of updating a central database takes place.

29. (Currently Amended) The method according to of claim 15 or 16, further comprising:

outputting one of claims 15 through 28 characterized in that following the step of selecting the other clock signal a step of providing an alarm after selecting the different output clock signal takes place